# **ADMINISTRATIVE REPORT**

**TO:** Planning & Development Committee

**FROM:** B. Newell, Chief Administrative Officer

**DATE:** June 16,2022

**RE:** Proposed Noise Regulation Bylaw No. 2931, 2022



#### **Administrative Recommendation:**

THAT Bylaw No. 2931, 2022, a bylaw of the Regional District to incorporate the use of decibels as a measurement criteria in a Noise Control Bylaw, be initiated

#### **Background:**

Under Section 324 (Noise Control) of the *Local Government Act*, the board may, by bylaw, "regulate or prohibit the making or causing of noises or sounds in or on a highway or elsewhere in the regional district."

At present, the Regional District has adopted Noise Control Bylaws for Electoral Areas "C", "D", "E", "F", "H" & "I" and are *generally* consistent in terms of wording and layout.

At its meeting of July 22, 2021, the Planning and Development (P&D) Committee of the Board considered an Administrative Report related to Bylaw No. 2931 and resolved that the bylaw be referred to the Electoral Area Advisory Planning Commissions (APCs) for comment.

At its meeting of December 16, 2021, the P&D Committee considered the recommendations from the Electoral Area APCs as well as some additional information related to construction hours, delegation of noise exemptions and fees.

The Committee recommended that Draft Bylaw No. 2931 be updated to reflect revised construction hours and that options related to the measurement of decibels be brought forward for consideration.

## Benchmarking:

A review of approximately 40 different local government noise bylaws has been completed and, from this, it was determined that there are two basic approaches to noise regulation; "objective" versus "subjective".

An "objective" approach can include criteria prohibiting sounds that exceed a certain sound meter rating, or exceeds background noise by a certain amount (e.g. by measuring decibels), whereas, "subjective" criteria often involves a judgment call as to whether someone has infringed a noise bylaw regulation (e.g. the criteria to be considered consists of whether a sound was "likely to disturb" a neighbour).

WorkSafe BC establishes noise exposure limits that an employer must ensure that a worker is not exposed to and, for illustrative purposes, provides the following examples of decibel (dBA) levels:

- 30-40 quiet pleasant sounds.
- 70-90 heavy machinery, electric motors
- 40-50 quiet normal office sounds
- 100-120 power saw, rex planer, motorcycle

• 50-60 normal conversation

• 140+ jet engine, gunshot (this level causes pain)

At present, Penticton, Summerland, Oliver, Osoyoos, Keremeos and Princeton all rely on "subjective" criteria to regulate noise within their jurisdictions.

Within the broader Okanagan Valley, only the North Okanagan Regional District (NORD) appears to have implemented a noise bylaw that uses "objective" criteria, however, the "objective" approach is more common in the Lower Mainland.

For reference purposes, an overview of the regulatory approaches employed by local governments utilising the "objective" measurements is included at Attachment No. 1.

## **Analysis:**

Generally, a shift to the use of "objective" measurement criteria when enforcing noise regulations, such as decibels (e.g. dBA), is seen to provide a more reliable and practical approach to the enforcement of the bylaw.

The structure of noise regulation bylaw incorporating "objective" criteria is, however, substantially different from a noise regulation bylaw that relies solely on "subjective" criteria.

For instance, the typical "objective" noise bylaw will, amongst other things, establish zones or districts based on use (e.g. commercial, industrial, residential and other), define "day time" and "night time", establish maximum decibel levels, differentiate these based on zone/district and establish criteria for how sound measurements are to be taken.

In light of this, and taking into account such factors as recency of adoption, technical guidelines and clarity of language, Administration has used the City of Abbotsford's Sound Regulation Bylaw (2017) as a general template to re-draft the Regional District proposed Noise Regulation Bylaw No. 2931 to incorporate "objective" criteria.

According to Abbotsford, the most commonly used zones and decibel measurements by the local governments it surveyed when preparing its Sound Regulation Bylaw are as follows:

Zones	Day	Night
Residential	55 dBA	45 dBA
Residential/Commercial	60 dBA	55 dBA
Industrial	65 dBA	60 dBA
	70 dBA (when bordering	70 dBA (when bordering
	other industrial areas)	other industrial areas)

This was used by Abbotsford to establish two (2) noise district's within the municipality; an "Activity District" (incorporating industrial and commercial use) and a "Quiet District" (all other uses), within which certain noise levels are not to be exceeded at certain times, and is proposed as the model for Bylaw No. 2931.

As can be seen at Attachment No. 1, the use of "Quiet" and "Activity" districts/zones to regulate noise level is common, and is also the model utilized by the North Okanagan Regional District (whose bylaw, in turn, is based on the City of Richmond's Noise Regulation Bylaw).

The Committee is asked to be aware that it is anticipated that there will be situations where noise measurement may be impractical, accordingly, the bylaw will continue to include "subjective" criteria (e.g. proposed Section 7.0 - Disturbing Sound).

# Costs:

As the Regional District has no previous experience applying an "objective" noise regulation bylaw, staff training will be required along with the acquisition of sound meters capable of measuring levels of sound pressure in accordance with minimum standards.

The cost of a sound level meter ranges from \$500 to \$3,000 (depending on quality) while accessories such as field calibrators, tripod, cases, etc. add to costs. Field calibration is considered critical to meet potential legal challenges related to instrument accuracy as is lab calibration of the sound measuring equipment on an annual basis.

Accordingly, Administration is anticipating an initial start-up cost of approximately \$5,000 - \$10,000 (training and equipment), with on-going operating costs of \$1,000 - \$2,000 (maintenance/repair, calibration, etc.).

#### Alternatives:

1. THAT the Regional District of Okanagan-Similkameen Noise Regulation Bylaw No. 2931, 2022, and Bylaw Notice Enforcement Amendment Bylaw No. 2507.14, 2022, be abandoned.

Respectfully	submitted:
--------------	------------

C. Garrish, Planning Manager

M. Petry, Building & Bylaw Enforcement Manager

#### Attachments:

No. 1 – Overview of Local Government "Objective" Sound Measure Regulations

Attachment No. 1 – Overview of Local Government "Objective" Sound Measure Regulations

Local Government	Designation	Dec	cibels – Da	y (Ma	x.)	D	ecibels	– Nig	ht (Max.)	Point of Measurement
North Okanagan	North Okanagan Regional District "Noise Regulation"  "Quiet" Zone (Residential & Rural Zones)		Sound Receiver Zone							"point of reception" means a position within the
					uiet Night	Intern Day	nediate Night	Act	Night	property line of the real property occupied by the
Bylaw" (2013)	"Intermediate" Zone (Commercial, Special Use and CD Zones)	Sound Source Zone	Quiet Intermediate	55 dBA 65 dBC 60 dBA 70 dBC	45 dBA 55 dBC 50 dBA 60 dBC	60 dBA 70 dBC 60 dBA 70 dBC	50 dBA 60 dBC 50 dBA 60 dBC	70 dBA 80 dBC 70 dBA 80 dBC	70 dBA 80 dBC 70 dBA 80 dBC	recipient of a sound that best represents the location at which that specific sound, emanating
	"Activity" Zone (Industrial Zones)								70 dBA 80 dBC	from another property, is received and the resulting disturbance experienced.
					am – 10 )am – 1			•		
Comox Valley Regional District "Noise Control Regulations Bylaw" (2010)	Industrial Noises						ecibels – 8am			<ul> <li>point of reception is a separate legal parcel containing a residential premise(s).</li> </ul>
Cowichan Valley Regional District	Residential	60 dB 7am – 9	pm (Mon	– Sun.)		50 dE 9pm	3 – 7am (	(Mon	- Sun.)	• in the case of noises or sounds created by
"Noise Control Bylaw" (2013)	Construction	85 dB 7am – 9pm (Mon. – Sat.)				65 dB 9pm – 7am (Mon. – Sun.)				Construction, from a Point of Reception on any Premises, not including the
	Power Noise Regulation Bylaw No. 2931, 2022 Page 4 of 11		lpm (Mon. 1 lpm (Sun. &	•		65 dB 9pm – 7am (Mon. – Sun.)		- Sun.)	Premises on which the Construction is taking place; and • in all other cases, from a Point of Reception not on	

Local Government	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
				the Premises upon which the source of the noise or sound is located.
Fraser Valley Regional District "Gravel Operations Bylaw" (2016)	Gravel operations	60 dBA 7am – 7pm (Mon. to Sat.)	50 dBA 7pm – 7am (Mon. to Sat.) Sundays and Stat. Holidays	"Community Areas" (12 maps) when measured at any point along the property line of a receiving parcel or at any point within a receiving parcel.
Abbotsford "Sound Regulation Bylaw" (2017)	"Activity District" (Commercial and Industrial zones)	55 dBA or 70 dBC (in Quiet District) 60 dBA or 70 dBC (in Activity District) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats) 60 dBA or 70 dBC (in Quiet District) 70 dBA or 70 dBC (in Activity District) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	45 dBA or 65 dBC (in Quiet District) 60 dBA or 65 dBC (in Activity District) 10pm – 7am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)  55 dBA or 65 dBC (in Quiet District) 70 dBA or 65 dBC (in Activity District) 10pm – 7am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	<ul> <li>(a) is within the property line of the real property occupied by the recipient of a noise or Sound,</li> <li>(b) is located at least 1.2 m above the surface of the ground, and</li> <li>(c) best represents the location at which the noise or Sound, emanating from another property, is received and the resulting disturbance experienced; or</li> <li>(a) is within six metres outside of the real property from which the sound is emanating.</li> </ul>
Burnaby	Residential, Public & Institutional and Multiple Family Zones	55 dBA 7am – 10pm	45 dBA 10pm – 7am	shall be measured at any point on the property line or within six (6) metres of

Local Government	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
"Noise or Sound Abatement Bylaw" (1979)	Commercial, Industrial, CD & Agricultural Zones	7am – 10pm 65 dBA; or 60 dBA adjacent a Residential, Public & Institutional or Multiple Family Zone.	10pm – 7am 60 dBA; or 55 dBA adjacent a Residential, Public & Institutional or Multiple Family Zone.	the property line of the real property from which the said continuous or non-continuous noise or sound is emanating
	All other uses	80 dBA 7am – 10pm	75 dBA 10pm – 7am	
Chilliwack "Community Standards Bylaw" (2021)	Commercial or Industrial Noise		65 dBA 9pm – 7am when bordering a residential zone 80 dBA 9pm – 7am when bordering a non-residential zone	<ul> <li>as measured at a Point of Reception within the residential zone; or</li> <li>as measured at a Point of Reception within the non- residential zone.</li> </ul>
	Outdoor Assembly & Public Address Systems	90 dBA 7am – 11pm	Any noise 11pm - 7am	<ul> <li>Day: as measured at any point within six metres outside the property from which the noise or sound is emanating</li> <li>Night: audible outside the property on which the outdoor assembly or public address system is located.</li> </ul>
Langley (Township) "Community Standards Bylaw" (2019)	"Quiet Zone" " means any area of land which contains Residential Premises, except where any part of such land directly borders an Activity Zone.	55 dBA or 70 dBC 7am – 10pm	45 dBA or 60 dBC 10pm – 7am	in the opinion of the Inspector, or other person authorized by the Municipality, best represents the location at which the Sound, emanating from another Property, is received and

Local Government	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
	"Intermediate Zone" means any area of land not otherwise defined as a Quiet Zone or an Activity Zone.	60 dBA / 75 dBC 7am – 10pm	50 dBA / 65 dBC 10pm – 7am	the resulting disturbance is experienced.
	"Activity Zone" means any area of land zoned to permit industrial or commercial use under the Zoning Bylaw.	70 dBA / 85 dBC 7am – 10pm	70 dBA / 85 dBC 10pm – 7am	
North Vancouver "Noise Regulation Bylaw" (2000)	"Quiet Zone" means any part of the District in a residential zone	55 dBA 7am – 10pm	45 dBA 10pm – 7am	from a Point of Reception not on the Premises upon which the source of the
	"Activity Zone" means any part of the District not within the Quiet Zone.	60 dBA 7am – 10pm	55 dBA 10pm - 7am	noises or sounds is located.
	Non-Continuous Sound	80 dBA 7am – 10pm	75 dBA 10pm - 7am	
	Construction	80 dBA 7am – 10pm		
Pitt Meadows "Noise Control Bylaw" (2003)	"Quiet Zone" means Agricultural, Rural Residential, Residential, Multi- Family and CD Zones.	55 dBA (continuous) 80 dBA (non-continuous)	45 dBA (continuous) 75 dBA (non-continuous)	The sound level emanating from real property must be measured at a distance no greater than six (6) meters from the property line; or

Local Government	Designation		Decib	els – Day	(Max.)	)	Dec	ibels –	Night	(Max.)		Point of Measurement
	"Activity Zone" means Commercial and Industrial zones		•	ntinuous) n-continu			60 dBA 75 dBA	•	•	ous)		The sound level impinging upon real property must be measured inside the property line of the affected property no further than six (6) meters from the property line.
Port Moody "Sound Level Bylaw" (1980)	"Quiet Zone" means Rural Residential, Residential, Multi- Family and Public Service Zones.	80	-	ntinuous) n-continu ท	ous)		45 dBA 75 dBA 10pm -	(non-c	•	ous)		<ul> <li>any place or parcel where sound originating from any source, other than a source on such parcel, is received; or,</li> </ul>
	"Activity Zone" includes Commercial, Industrial, Town Centre and CD Zones.	65 dBA (continuous) 80 dBA (non-continuous) 7am – 10pm				60 dBA (continuous) 75 dBA (non-continuous) 10pm - 7am					any place on a strata lot designated, shown or described on a strata plan where sound originating from any source, other than a source on such strata lot, is received.	
Richmond	"Quiet Zone" " means					•	Sound Receiver Zone					a position within the
"Noise Regulation	land zoned				Qu	iiet	Intermediate Activity			ivity		property line of the real
Bylaw" (2012)	Residential,				Day	Night	Day	Night	Day	Night		property occupied by the
	Residential- Commercial,		Sound	Quiet	55 dBA 65 dBC	45 dBA 55 dBC	60 dBA 70 dBC	50 dBA 60 dBC	70 dBA 80 dBC	70 dBA 80 dBC		recipient of a sound that best represents the
	Institutional, and		Source Zone	Intermediate	60 dBA 70 dBC	50 dBA 60 dBC	60 dBA 70dBC	50 dBA 60 dBC	70 dBA 80 dBC	70 dBA 80 dBC		location at which that specific sound, emanating
Mixed-Use.	"Intermediate Zone"		Activity		60 dBA 70dBC	50 dBA 60 dBC	65 dBA 75 dBC	55 dBA 65 dBC	70 dBA 80 dBC	70 dBA 80 dBC		from another property, is
	means land zoned Mixed-Use,		Note: the permitted outdoor dBC sound level is 10 dB higher than the permitted dBA sound level.						received			
	Commercial, Marina, Institutional and Agricultural.		DAY: 7am – 8pm (MonSat.) NIGHT: 10am – 6pm (Sun. & Stats)									

Local Government	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
	"Activity Zone" means land zoned Industrial.			
West Vancouver "Noise Control Bylaw" (2005)	Continuous Sound	55 dBA 7am – 6pm (Mon. to Sat.) 9am – 6pm (Sun. & Stats)	45 dBA 6pm – 7am (Mon. to Sat.) 6pm – 9am (Sun. & Stats)	in the case of noises or sounds created by Construction, from a Point
	Non-Continuous Sound	80 dBA 7am – 6pm (Mon. to Sat.) 9am – 6pm (Sun. & Stats)	BA 65 dBA 65pm – 7am (Mon. to Sat.)	of Reception on any Premises, not including the Premises on which the Construction is taking
	Construction Noise	80 dBA 7am – 6pm (Mon. to Sat.) 9am – 6pm (Sun. & Stats)	[Not applicable]	<ul> <li>place; and</li> <li>in all other cases, from a         Point of Reception not on             the Premises upon which             the source of the noise or             sound is located.     </li> </ul>
Vancouver "Noise Control Bylaw" (1989)	"Quiet Zone"	55 dBA (in Quite Zone) 60 dBA (from Activity Zone) 60 dBA (from Event Zone) 60 dBA (from Interm. Zone) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	45 dBA (in Quite Zone) 55 dBA (from Activity Zone) 55 dBA (from Event Zone) 50 dBA (from Interm. Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	<ul> <li>a point in a lane or street, adjacent to but outside of the property occupied by the recipient of the noise or sound, that represents the shortest distance between that property and</li> </ul>
	"Intermediate Zone" (defined by zone)  60 dBA (from Quite Zone) 70 dBA (from Event Zone) 70 dBA (in Interm. Zone)	55 dBA (from Quite Zone) 65 dBA (from Activity Zone) 65 dBA (from Event Zone) 65 dBA (in Interm. Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	<ul> <li>the source of the noise; or</li> <li>where no lane, street, or other public property exists between the recipient and the source, any point outside the</li> </ul>	
	"Activity Zone" 60 dBA (fr (defined by zone) 70 dBA (ir 70 dBA (fr		55 dBA (from Quite Zone) 65 dBA (in Activity Zone) 65 dBA (from Event Zone)	property line of the real property from which the noise or sound emanates.

<b>Local Government</b>	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
		70 dBA (from Interm. Zone) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	65 dBA (from Interm. Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	
	"Event Zone" (defined by map schedule)	60 dBA (from Quite Zone) 70 dBA (from Interm. Zone) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	55 dBA (from Quite Zone) 65 dBA (from Interm. Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	
	Non-Continuous Sound	75 dBA 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	70 dBA 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	
Victoria "Noise Bylaw" (2004)	"Quiet Zone" (established by map schedule)	55 dBA (in Quite Zone) 55 dBA (from Interm. Zone) 55 dBA (from Harbour Zone) 60 dBA (from Activity Zone) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	45 dBA (in Quite Zone) 50 dBA (from Interm. Zone) 50 dBA (from Harbour Zone) 60 dBA (from Activity Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	<ul><li>(a) is within the property line of the real property occupied by the recipient of a noise or sound,</li><li>(b) is located at least 1.2 m above the surface of the</li></ul>
	"Intermediate Zone" (established by map schedule)	lished by map 60 dBA (in Intermediate Zone)	50 dBA (from Quite Zone) 55 dBA (in Intermediate Zone) 55 dBA (from Harbour Zone) 65 dBA (from Activity Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	ground, and (c) best represents the location at which the noise or sound, emanating from another property, is received and the resulting disturbance experienced.
	"Harbour Zone"  (established by map schedule)  60 dBA (from Quite Zone)  60 dBA (from Interm. Zone)  60 dBA (in Harbour Zone)  65 dBA (from Activity Zone)  7am – 10pm (Mon. to Sat.)  10am – 10pm (Sun. & Stats)	50 dBA (from Quite Zone) 55 dBA (from Interm. Zone) 55 dBA (in Harbour Zone) 65 dBA (from Activity Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	·	

Local Government	Designation	Decibels – Day (Max.)	Decibels – Night (Max.)	Point of Measurement
	"Activity Zone" (established by map schedule)	60 dBA (from Quite Zone) 65 dBA (from Interm. Zone) 67.5 dBA (from Harbour Zone) 70 dBA (in Activity Zone) 7am – 10pm (Mon. to Sat.) 10am – 10pm (Sun. & Stats)	55 dBA (from Quite Zone) 60 dBA (from Interm. Zone) 60 dBA (from Harbour Zone) 70 dBA (in Activity Zone) 10pm – 7 am (Mon. to Sat.) 10pm – 10am (Sun. & Stats)	